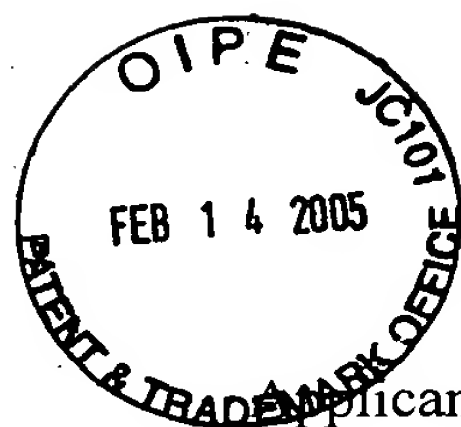


AP/2m
3736



**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Applicant: **RAVIV GABRIEL**

Serial No.: 09/901,244

Title: EAR PROBE TIP

Filed: JULY 9, 2001

Group Art Unit: 3736

Examiner: CHARLES MARMOR II

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APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
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Sir:

Pursuant to the Notice of Appeal mailed October 28, 2004, and the Notification of Non-Compliant Appeal Brief mailed on January 10, 2005, in connection with the above-identified patent application, the applicant respectfully submits the instant Brief on Appeal in accordance with 37 C.F.R. § 1.192. Applicant has previously submitted a check in the amount of \$170.00, pursuant to 37 C.F.R. § 1.17(c). If there are any additional fees or refunds required, the Commissioner is directed to charge or debit Deposit Account No. 13-2855.

I. REAL PARTY IN INTEREST

The real party in interest is Bio-logic Systems Corporation, the assignee of the above-identified patent application. The assignment assigning rights to Bio-logic Systems Corporation, is recorded in the United States Patent and Trademark Office ("USPTO") at Frame 0494 of Reel 012544.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF THE CLAIMS

Currently, claims 60-72 are pending in this application. The pending claims and corresponding status as rejected, allowed or confirmed, withdrawn, objected to or canceled are presented in Appendix A to this Brief. Claims 60-72 stand rejected and form the subject matter of this appeal.

The application was filed on July 9, 2001, with claims 1-31.

A preliminary amendment filed on May 1, 2002, canceled claims 1-31, and added claims 32-58.

The first Office action mailed November 19, 2002, *inter alia*, rejected claims 32-58, under 35 U.S.C. § 102(b) as anticipated by Baum (U.S. Patent No. 2,487,038). The examiner alleged that Baum disclosed a probe tip cover having a tubular conical shape, an outer and an inner surface shaped to receive a probe, a first end and a second end defining an inner continuous passage, a plurality of back angling flexible annular flanges that are perpendicular at the point where they join the tube, a tip at the second end, and an outer surface diameter increasing in the direction toward the second end. A middle element is along the body portion. The flexible probe tip is of rubbery elastic, a polymer and the inner portion shows a curved chamfer surface. Additionally, the tip is capable of being disposed, and there is a ring located at the proximal end of the device.

Applicants filed an amendment and response to the Office action on February 14, 2003. The response canceled claims 43 and 53 without prejudice and amended claims 32, 35-36, 40, 44-46, 49, 54, 55 and 56, and added claim 59. Claims 32, 35-36, 40, 44-46, 49, 54, 55 and 56 were amended to better define the invention. Further, claims 44-46 and 54-56 were amended to depend from a non-canceled claim. The newly added claim 59 further

defined the scope of the protection sought, and claimed additional and alternate embodiments of the invention set forth in the patent application.

Applicant argued in his response that Baum fails to disclose or suggest each and every element of the pending claims. In particular, claims 23, 40 and 49, as well as dependent claims therefrom, specify an ear probe tip having a body portion, a first flangeless end, a second end, a passage configured to receive an end of a probe from the second end toward the first flangeless end, and an annular flange disposed on the outer surface of the body portion. Baum fails to disclose such elements, in fact, Baum discloses an ear insert configured to form an acoustical channel. Further, Baum discloses a cavity configured to couple an end of a probe and the ear insert without inserting the probe into the acoustical channel formed by the sound passage. There is no reference in Baum of a passage configured to receive an end of a probe substantially the entire length of the passage. Because Baum does not disclose or suggest the recited elements, the claims cannot be anticipated thereby.

The applicants filed a proposed claims amendment via facsimile on March 20, 2003, after a telephone interview with the examiner. The proposed claims amendment amended claims 32, 40, 49 and 59 to better define the claimed invention and to correct certain minor typographical errors.

A notice of allowance was issued on March 21, 2003. In the notice, claims 32-42, 44-52 and 54-59 were allowed and the examiner entered an examiner's amendment to claims 32, 40, 49 and 59. An interview summary sheet was also attached summarizing the telephone interview of March 20, 2003.

On April 21, 2003, the applicants' attorney contacted the examiner regarding the Information Disclosure Statement submitted on February 14, 2003. Specifically, every item on the PTO/SB/08A was not initialed by the examiner and the applicants sought confirmation

that all items on the PTO/SB/08A had been considered. No item of information on the PTO/SB/08A had been lined through indicating that it had not been considered. On May 12, 2003, having not heard from the examiner regarding the PTO/SB/08A, applicants' attorney again contacted the examiner to inquire about the IDS, the examiner requested the attorney resend the PTO/SB/08A by facsimile, which the applicants' attorney did the same day. As of June 9, 2003, applicants had not received confirmation from the examiner regarding the PTO/SB/08A. Applicants submitted the above information in a letter dated June 19, 2003 and additionally in the letter stated that they believed each reference on the PTO/SB/08A had been considered.

A notice of withdrawal from issue was sent on October 24, 2003 indicating that the application had been withdrawn from issue after payment of the issue fee due to unpatentability of one or more claims.

A non-final Office action was issued on December 22, 2003, rejecting claims 32-42, 44-52 and 54-59 and objecting to the drawings filed on July 9, 2001 and the specification. The drawings were objected to because reference character "30" was used to designate both a ring and different diameters in Figs. 2 and 3 and reference character "32" was used to designate inconsistent parts in Figs. 1, 2, 5 and 6. Further, the drawings failed to include reference sign "31" which was mentioned in the specification.

The specification was objected to because the first sentence of the specification should have included the patent number of the parent application. Claims 32-39 and 59 were rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 6,053,875 to Rosenbaum et al, U.S. Patent No. 4,261,432 to Gunterman, U.S. Patent No. ,055,233 Huntress and U.S. Patent No. 3,935,401 to Shore et al. and under 35 U.S.C. § 102 (e) as anticipated by U.S. Patent No. 5,988,313 to Hakansson. Claims 32-42, 44-52 and 54-59 were

the ear probe tip, nor does it teach the passage being in contact with the probe along substantially the entire length of the probe covered by the ear probe tip.

Applicants argued that Huntress would not anticipate any of newly presented claims 60-72. Huntress does not teach or suggest an ear probe tip wherein when the ear probe tip is placed on the probe, an inner surface is disposed about the probe, is substantially in contact with the probe along the length to be covered and the second opening is proximate to the probe end. Huntress instead teaches a passage with a relieved portion into which the input end of a stethoscope is inserted.

Applicants argued that Shore would not anticipate any of newly presented claims 60-72. Shore does not teach or suggest an ear probe tip wherein when the ear probe tip is placed on the probe, an inner surface is disposed about the probe, is substantially in contact with the probe along the length to be covered and the second opening is proximate to the probe end. Shore teaches a passage with a relieved portion into which the output end of an acoustic headset is inserted.

Applicants argued that Hakansson would not anticipate any of newly presented claims 60-72. Hakansson teaches an ear plug, not a probe tip, which would not be suitable for receiving an ear probe. Hakansson does not teach or suggest an ear probe tip wherein when the ear probe tip is placed on the probe, an inner surface is disposed about the probe, is substantially in contact with the probe along the length to be covered and the second opening is proximate to the probe end. Hakansson teaches no passage and accordingly no second opening for the sound output.

Applicants argued that newly presented claims 60-72 would not be obvious over Mullin in view of Baum. Neither Mullin nor Baum teach an ear probe tip wherein when the ear probe tip is placed on the probe, an inner surface is disposed about the probe, is

also rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 3,105,876 to Mullin et al. in view of U.S. Patent No. 2,487,038 to Baum.

In reference to claims 32-39 and 59, the examiner asserted that Rosenbaum disclosed an ear probe tip with a first flangeless end and a flange proximal to a second end, an inner diameter of the tip which increases in diameter from the first flangeless end to the second end. The inner diameter is capable of receiving a probe end.

In reference to claims 40-42 and 44-48, the examiner asserted that Gunterman disclosed an ear probe tip with a first flangeless end and a flange proximal to a second end. A first cross-sectional area proximate the first flangeless end is smaller than the cross-sectional area proximate the second end.

The examiner further asserted that Huntress disclosed an ear probe tip with a first flangeless end and a flange proximal to a second end. A first cross-sectional area proximate the first flangeless end is smaller than the cross-sectional area proximate the second end.

The examiner still further asserted that Shore disclosed an ear probe tip with a first flangeless end and a flange proximal to a second end. A first cross-sectional area proximate the first flangeless end is smaller than the cross-sectional area proximate the second end.

In reference to claim 59, the examiner asserted that Hakansson disclosed a tip with tapered first end and a second end. The inner diameter increases from the tapered first end to the second end and receives a probe end. An annular flange is proximal to the second end.

Claims 32-42, 44-52 and 54-59 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Mullin in view of Baum. The examiner asserted the Mullin taught an ear tip with a first flangeless end and a second end. An inner passage incrementally increases in size from the first flangeless end to the second end. The inner passage mates with the probe

end. Mullin, however, did not teach a flange or ring, but Baum taught at least one flange and ring were provided to automatically establish an acoustic seal.

Finally, claims 32, 40, 49 and 59 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5, 10, 12 and 16 of U.S. Patent No. 6,258,043 to Raviv et al.

In response to the non-final office action of December 22, 2003, applicants filed Amendment B on April 22, 2004 with a one month extension of time request. Corrected drawings were filed with the amendment to overcome the objection to the drawings in the office action. Further, a terminal disclaimer was filed to overcome the obviousness-type double patenting rejection of the office action.

In the amendment, applicants canceled claims 1-59 and added new claims 60-72. The specification was amended to include the patent number of the parent application. Applicants further argued that Rosenbaum is not prior art to the instant application and submitted a declaration under 37 C.F.R. § 1.131 establishing that the invention was made in the U.S. before January 13, 1998, the filing date of Rosenbaum. Additionally, applicants argued that Rosenbaum would not anticipate newly presented claims 60-72 because Rosenbaum does not teach or suggest an ear probe tip wherein when the ear probe tip is placed on the probe.

Applicants argued that Gunterman did not anticipate any of newly presented claims 60-72 because Gunterman does not teach or suggest an ear probe tip wherein the ear probe tip is placed on the probe, an inner surface is disposed about the probe, is substantially in contact with the probe along the length to be covered and the second opening is proximate to the second end. Gunterman reveals that the configuration of the passage within which the probe end is received does not extend such that the probe end is proximate the second opening of

substantially in contact with the probe along the length to be covered and the second opening is proximate to the probe end. Each of Mullin and Baum teach a passage with a relieved portion into which the output end of a probe or earphone is inserted. Such an arrangement is not suitable for testing.

On July 28, 2004, the examiner issued a final rejection of claims 60-72 under 35 U.S.C. § 102 (b) as being anticipated by Baum, U.S. Patent No. 4,540,063 to Ouchi and U.S. Patent No. 5,113,967 to Killion and further rejected under 35 U.S.C. § 103 (a) as unpatentable over U.S. Patent No. 4,057,051 to Kerouac in view of Baum. Additionally, the examiner rejected claims 63 and 70 under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention and objected to claim 60 for a minor informality. The examiner also objected to the drawings because a reference sign appeared twice (24), a reference number mentioned in the description was not present in the drawings (21) and a reference number appearing in the drawings does not appear in the description (54).

A telephone interview was conducted with the examiner on August 24, 2004. The substance of the interview included the applicants' representative explaining the differences between the ear probe tip of the instant invention and the tips of Baum, Ochi and Killion. The differences involve the passage of the ear probe tip of the instant invention extending through the body of the ear probe tip and intending to receive a probe such that the surface of the passage is disposed about the probe, is substantially in contact with the probe along the length of the probe, and provides for alignment of the second opening of the probe tip with the probe end. An ear probe tip configured in such a manner will minimize the interference or distortion of measurements being taken with the probe as discussed in the specification. The examiner pointed out that a relationship between the passage and a probe that is not positively recited as part of the apparatus cannot be relied on to distinguish the present

invention from the prior art. Applicants believe the examiner is mistaken on this point. The examiner further suggested that adding limitations to the claim to positively recite an ear probe in combination with the ear probe tip might give more weight to the relationship between the passage and the probe. Applicants respectfully disagreed with the examiner that it was necessary to positively recite the probe in combination with the ear probe tip.

IV. STATUS OF THE AMENDMENTS

Applicant submits additional amendments contemporaneously with the filing of this Brief. A copy of the pending amendments and attendant remarks, as submitted to the examiner contemporaneously with this paper, are presented in Appendix A of this Brief. The amendments correct the drawings and the specification to bring the specification into agreement with the amended drawings. These amendments are made in response to the office action mailed on July 28, 2004, specifically paragraphs 2-4. The amendments do not raise issues of new matter, nor do they present new issues requiring further consideration or search.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Although specification citations are inserted below in accordance with C.F.R. 1.192(c), these reference numerals and citations are merely examples of where support may be found in the specification for the terms used in this section of the brief. There is no intention to in any way suggest that the terms of the claims are limited to the examples in the specification. Although, as demonstrated by the reference numerals and citations below, the claims are fully supported by the specification as required by law, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology, as is done here to comply with rule 1.192(c), does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading

limitations into the claims from the specification. In short, the reference numerals and specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

The invention, as defined in claims 60-72, and with reference to FIGS. 1-4, is an ear probe tip which fits around an ear probe. An ear probe tip 10 is shown in FIG. 1. The ear probe tip 10 includes a body portion 20 and a plurality of flexible annular flanges 23, 24, 25, 26. The body portion 20 may be tube shaped and have a passage 22, a first end 27 and a second end 28. The passage 22 extends the entire length of and runs axially through the body portion 20. The second end of the body portion 20 may include a chamfer 29 (FIG. 2) which may facilitate the insertion of the probe 50 (FIG. 3) into the tip 10.

The tip 10 may be placed over a probe 50 and adjacent to a probe base 48 (FIG. 3). The probe base 48 and probe 50 are components of an existing hearing testing apparatus. When the tip 10 is fully positioned over a probe 50, the tip 10 extends past the probe end 52, thereby preventing the probe end 52 from contacting the ear. The probe tip 10 and the passage 22 are adapted and sized to accept the probe 50 so that substantially the entire length of the passage 22 can receive the probe 56 and such that the probe end 52 is adjacent an output opening of the tip 10, thereby eliminating the need for the passage 22 to form an acoustic channel.

Specifically, independent claim 60 recites an ear probe tip 10 (FIG. 1 and page 3, lines 24-25) for a probe 50 (FIG. 3 and page 4, lines 2-3) which can be inserted into an ear canal (page 4, lines 10-11). The probe 50 has an outer surface and a length to be covered by the probe tip 10 (page 5, lines 9-11) and a probe end 52 (FIG. 3 and page 5, lines 10-11). The ear probe tip includes a body portion 20 of substantially the same length as the length of the probe 50 to be covered having a first end 27 and a second end 28 (FIGS. 1-5 and page 5, lines 9-11). The ear probe tip 10 further including a passage 22 (FIGS. 1-4) formed within the

body portion 20, the passage 22 having a first opening at the first end 27, a second opening at the second end 28 (FIGS. 1-4) and a surface extending within the body portion 20 between the first opening and the second opening. The passage 22 is configured to receive the probe 50 such that when the probe 50 is received within the passage 22, the surface is disposed about the probe 50, is substantially in contact with the probe 50 along the length to be covered and the second opening is proximate the probe end 52 (FIG. 3, page 5, lines 9-16). The ear probe tip 10 also includes an outer surface of the body portion 20 having a plurality of annular flanges 23, 24, 25, 26 (FIGS. 2-3 and page 4, lines 7-8), each of the plurality of annular flanges 23, 24, 25, 26 having a diameter, the diameter of adjacent annular flanges decreasing in size from the first end toward the second end (FIGS 1-6 and page 4, lines 13-15).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- 1) Claims 60-72 stand rejected as anticipated by U.S. Patent No. 2,487,038 to Baum.
- 2) Claims 60-72 stand rejected as anticipated by U.S. Patent No. 4,540,063 to Ouchi et al.
- 3) Claims 60-65 and 70-72 stand rejected as anticipated by U.S. Patent No. 5,113,967 to Killion et al.
- 4) Claims 60-65 and 70-72 stand rejected as obvious over U.S. Patent No. 4,057,051 to Kerouac in view of U.S. Patent No. 2,487,038 to Baum.
- 5) Claim 63 stands rejected as indefinite under 35 U.S.C. § 112.
- 6) Claim 70 stands rejected as indefinite under 35 U.S.C. § 112.

VII. ARGUMENTS

A. Claim 60 is Patentable Over Baum.

1. Preamble serves to define claimed structure.

Independent claim 60 recites, *inter alia*, an ear probe tip *for a probe, the probe having an outer surface, a length to be covered by the ear probe tip and a probe end*, the ear probe tip comprising: a *body substantially the same length as the length of the probe to be covered* and having a first end and a second end, and a passage formed within the body portion, the passage having a first opening at the first end, a second opening at the second end and a surface extending within the body portion between the first opening and the second opening, the passage being configured to receive the probe such that when the probe is received within the passage the surface is disposed about the probe, is substantially in contact with the probe along the length to be covered *and the second opening is proximate to the probe end*. For example, as illustrated in FIG. 3, the body 20 is substantially the same length as the probe 50 and the probe end is proximate to the second opening 27.

Applicants respectfully submit that the preamble of claim 60, and therefore all claims which depend from claim 60, while not forming a part of the claimed invention, serves to define the structure of the claimed invention. MPEP 2111.02 makes clear that terminology in the preamble can serve to limit the structure of the claimed invention. Further, whether preamble recitations structurally limit the claimed invention “can be resolved only on review of the entirety of the application ‘to gain an understanding of what the inventors actually invented and intended to encompass by the claim.’” See, e.g., *Corning Glass Works v. Sumitomo Elec. U.S.A., Inc.*, 868 F.2d 1251, 1257, 9 USPQ2d 1962, 1966 (Fed. Circ 1989). See also *Pac-Tec Inc. v. Amerace Corp.*, 903 F.2d 796, 801, 14 USPQ2d 1871, 1876 (Fed. Cir. 1990).

In the preamble of claim 60, a “probe” is recited. Additionally, the probe has “an outer surface, a length to be covered by the ear probe tip and a probe end.” From this portion of the preamble, we can see that the ear probe tip (claimed invention) must be at least as long as the probe having a “length to be covered.” Certainly, this defines the structure of the ear probe tip. For instance, the ear probe tip could not be shorter than the probe having a “length to be covered.” Further, a body passage having a first opening, a second opening and configured such that the “second opening is proximate to the probe end” is positively recited in claim 60. Again, the preamble specifies “the probe end” and therefore, serves to define the structure of the ear probe tip (claimed invention). Specifically, the ear probe tip must be configured such that when the probe is inserted into the ear probe tip, the second opening in the ear probe tip is “proximate to the probe end.”

Further, according to MPEP 2111.02, we must look to the entirety of the application to determine whether the preamble recitations structurally limit the claims. Immediately, we find several passages which indicate that the language in the preamble of claim 60 does serve to limit the structure of the claimed invention. First, in the “Background of the Invention” section on page 1, lines 16-18, the specification states that a disadvantage of the prior art is that they require an “acoustical sound passage” or else the test procedure will produce unreliable results. One way to solve this problem is to eliminate the need for an “acoustical sound passage.” The specification suggests in connection with the claimed invention just such a modification on page 2, lines 12-15, which states, “...the probe tip is designed so that it can receive the probe, whereby the probe tip can be positioned fully over the probe while still allowing the probe tip’s end to slightly extend past the end of the probe. *This configuration does not require each probe tip to comprise an acoustical channel.*”(emphasis added)

Additionally, on page 5, lines 9-11, the specification states, "...the passage 22 should be adapted and sized to accept the probe end 52 so that substantially the entire length of the passage 22 can receive the probe end 52 *thereby eliminating the need for the passage 22 to form an acoustic channel.*"(emphasis added) The forgoing references indicate that the inventors intended the invention to have no "acoustical channel" and for this design characteristic to be met, the second end of the body of the ear probe tip to be "proximate to the probe end when the probe tip is positioned on the probe." It is also clear that while the ear probe tip is intended to be used with an ear probe, the ear probe was not intended to be part of the invention. So, while the ear probe is not part of the claimed invention, its characteristics are, nevertheless, elements which define the structural limitations of the ear probe tip (claimed invention). Therefore, the terminology in the preamble does limit the structure of the claimed invention.

2. Claimed structure is patentable over Baum.

Baum does not disclose an ear probe tip for a probe, the probe having an outer surface, a length to be covered by the ear probe tip and a probe end, wherein a body of the ear probe tip is substantially the same length as the length of the probe end to be covered and wherein a second opening of the body is proximate to a probe end as is recited in claim 60. While Baum discloses an ear insert having a sound passage (see Fig. 1 and col. 2, lines 25-26), the ear insert is not substantially the same length as a probe end and in no way could the second opening of the Baum device be proximate to a probe end. Specifically, the Baum device is configured to couple an end of an acoustical device and the ear insert without inserting the acoustical device into the acoustic channel formed by the sound passage (see Figs. 1 and 5 and col. 2, lines 18-26). Thus the end of the acoustical device could not be proximate a second opening of the ear insert as the acoustical device only extends a short distance into the ear insert.

While the applicants disagree (see the arguments set forth in section VII.A.1 above), the examiner has asserted in the final office action that because the applicant does not positively claim the ear probe or any particular structure thereof in combination with the ear probe tip and that the relationship between the ear probe tip and the probe end recited in the claims merely defines the intended use of the instant invention and cannot be solely relied upon to define the ear probe tip over the prior art. It appears from the examiner's statement above and from the telephone interview conducted on August 24, 2004, that the examiner believes that the claims would define the ear probe tip over the prior art if the probe structure were positively recited in the claims. Applicants respectfully submit in the foregoing arguments, that preamble statements can, and in this case do, define the structure of the claimed invention and must be treated as a claim limitation.

Accordingly, Baum neither anticipates nor renders obvious claim 60, or any of claims 61-72 depending therefrom, and thus claims 60-72 are allowable over Baum.

B. Claim 60 is Patentable over Ouchi.

Applicants incorporate as if fully set forth herein the arguments of Section VII.A.1, above.

Ouchi does not disclose an ear probe tip for a probe, the probe having an outer surface, a length to be covered by the ear probe tip and a probe end, wherein a body of the ear probe tip is substantially the same length as the length of the probe to be covered and wherein a second opening of the body is proximate to a probe end as is recited in claim 60. While Ouchi discloses a sound wave attenuation device comprising an outer shell having inlet and outlet apertures at opposite ends and a sound wave attenuation unit disposed therebetween, Ouchi does not disclose an ear probe tip substantially the same length as the length of a probe, in fact, Ouchi does not disclose a body portion substantially the same length as a probe of any sort, let alone a body portion having a second opening arranged to be proximate to a

probe end. The Ouchi device is clearly not intended to be used with a probe. Therefore, the Ouchi device could not possibly have a structure which is substantially the same length as the length of a probe to be covered. It is obvious from FIGS. 2 and 4, that a probe could not possibly be covered by the Ouchi device as the Ouchi device contains a sound wave attenuation unit 22 between the inlet aperture 28 and the outlet aperture 30 (col. 2, lines 31-47 and FIG. 2). The sound wave attenuation unit would prevent a probe from being covered by the Ouchi device, much less allow the Ouchi device to have a second opening "proximate to the probe end" as is recited in claim 60. Further, as discussed above, the claims preamble statements do act to limit the structure of the claimed invention.

Therefore, Ouchi neither anticipates nor renders obvious claim 60, or any of claims 61-72 depending therefrom, and thus claims 60-72 are allowable over Ouchi.

C. Claim 60 is Patentable over Killion.

Applicants incorporate as if fully set forth herein the arguments of Section VII.A.1, above.

Killion does not disclose an ear probe tip for a probe, the probe having an outer surface, a length to be covered by the ear probe tip and a probe end, wherein a body of the ear probe tip is substantially the same length as the length of the probe to be covered and wherein a second opening of the body is proximate to a probe end as is recited in claim 60. Killion discloses an ear plug which uses damping to render unimportant a Helmholtz resonance between the acoustic mass intrinsic to a sound channel thereof (Abstract). Killion not only fails to disclose an ear probe tip, or a probe of any sort, but includes the very structure that the present invention was designed to eliminate, namely a sound (acoustic) channel. The earplug of Killion includes an "eartip or the like [is] arranged for positioning with at least an inner end portion thereof in an ear canal to define a first sound passage extending from an inner end within the ear canal to an opposite outer end (col. 3, lines 29-34). Again, this

“sound passage” of Killion is exactly what the instant invention sought to eliminate (see page 1, lines 16-18 and page 2, lines 12-15 of the instant disclosure) and having such a “sound passage” eliminates the possibility that a probe end could be “proximate” a second opening. Killion fails to disclose a body with a passage having a first and a second opening wherein, when the probe tip is disposed on a probe, the second opening is proximate to a probe end, as is recited in claim 60.

Therefore, Killion neither anticipates nor renders obvious claim 60, or any of claims 61-72 depending therefrom, and thus claims 60-72 are allowable over Killion.

D. Claim 60 is Patentable over Kerouac in view of Baum

Applicants incorporate as if fully set forth herein the arguments of Section VII.A.1, above

There is no motivation to combine Kerouac and Baum. Kerouac only describes a cuff 12 as resilient and releasably attached to the probes outer end (col. 2, lines 67-68). No further structure is mentioned. Further, Kerouac does not even recognize the problem of different ear sizes, which Baum was designed to overcome (col. 1, lines 47-50 and col. 2, lines 6-9). Because Kerouac does not even recognize the problem of multiple ear shapes and sizes, there can be no motivation to combine Kerouac and Baum.

Additionally, if the ear insert of Baum were used with the ear probe of Kerouac, the probe tip of Kerouac would not be disposed proximate the second opening of the ear insert of Baum. The ear insert of Baum only allows the sound transmitting device to be partially inserted into the ear tip and, therefore, an output opening of the sound transmitting device could not be proximate to the second opening (FIG. 1 and col. 2, lines 10-11). Further, because the ear insert of Baum is formed with a “sound passage 20 extending axially therethrough” (col. 2, lines 25-26), the ear insert of Baum necessarily includes an “acoustic channel.” This acoustic channel would make the calibration of the probe of Kerouac very

difficult and potentially render results unreliable. Therefore, even if there was motivation to combine Kerouac and Baum, which there clearly is not, the combination would not produce the instant invention. Additionally, a “successful” combination of Kerouac and Baum cannot be made because if the ear insert of Baum were used with the probe of Kerouac, because the performance of the probe of Kerouac would be degraded. Because there is no motivation to combine Kerouac and Baum and even if there was motivation, the combination would not produce the instant invention or even a successful result.

Therefore, any combination of Kerouac and Baum would not render obvious claim 60, or any of claims 61-72 depending therefrom, and thus claims 60-72 are allowable over Kerouac and Baum.

E. Claim 63 is definite with respect to 35 U.S.C. § 112

The final Office action rejected claim 63 as being indefinite under 35 U.S.C. § 112, second paragraph. The examiner alleged that the language of the claim renders it indefinite in that it is unclear whether each of the plurality of annular flanges is substantially circular or only one of the flanges. The applicants submit that the language is clear and that at least one of the plurality of flanges is substantially circular. Therefore, the language of claim 63 particularly points out and distinctly claims that which the applicants regard as their invention.

F. Claim 70 is definite with respect to 35 U.S.C. § 112

The final Office action rejected claim 70 as being indefinite under 35 U.S.C. § 112, second paragraph. The examiner alleged that it is unclear whether the applicants are attempting to claim an ear probe tip or a combination of an ear probe tip and an ear probe. As is clearly set forth herein, the applicants intended to claim an ear probe tip. The reference to the ear probe is made only to structurally define the ear probe tip. As such, and in view of

the foregoing arguments, the applicants submit the language of claim 70 particularly points out and distinctly claims that which the applicants regard as their invention.

VIII. CLAIMS APPENDIX

CLAIMS

The following listing of claims replaces all prior presentations or listing of claims.

60. (Previously Presented) An ear probe tip for a probe which can be inserted into an ear canal, the probe having an outer surface, a length to be covered by the ear probe tip and a probe end, the ear probe tip comprising:

a body portion of substantially the same length as the length of the probe to be covered and having a first end and a second end;

a passage formed within the body portion, the passage having a first opening at the first end, a second opening at the second end and a surface extending within the body portion between the first opening and the second opening, the passage being configured to receive the probe such that when the probe is received within the passage the surface is disposed about the probe, is substantially in contact with the probe along the length to be covered and the second opening is proximate to the probe end;

an outer surface of the body portion; and

a plurality of annular flanges formed on the outer surface, each of the plurality of annular flanges having a diameter, the diameter of adjacent annular flanges decreasing in size from the first end toward the second end.

61. (Previously presented) The ear probe tip of claim 60, wherein the passage comprises one of a frusto-conical shape and a cylindrical shape.

62. (Previously presented) The ear probe tip of claim 60, wherein the body portion comprises a frusto-conical shape.

63. (Previously Presented) The ear probe tip of claim 60, wherein the annular flange comprises a substantially circular shape.

64. (Previously presented) The ear probe tip of claim 60, wherein each of the plurality of annular flanges is disposed substantially perpendicular to the body portion.

65. (Previously presented) The ear probe tip of claim 60, wherein the plurality of annular flanges are disposed proximate to a middle portion of the body portion.

66. (Previously presented) The ear probe tip of claim 60, the first opening comprising a chamfer.

67. (Previously presented) The ear probe tip of claim 60, the passage having an increased size diameter portion adjacent the first opening.

68. (Previously presented) The ear probe tip of claim 60 further comprising a ring formed on the outer surface adjacent the first end.

69. (Previously presented) The ear probe tip of claim 60, wherein the passage has an incrementally decreasing diameter from the first end toward the second end.

70. (Previously presented) The ear probe tip of claim 60, wherein the second end extends past the probe end a distance, the distance the second end extends past the probe end being sufficient to prevent the probe end from contacting a patient's ear upon insertion of the probe into the patient's ear canal and insufficient to form a portion of the acoustic path from the probe end into the patient's ear canal.

71. (Previously presented) The ear probe tip of claim 60, wherein the outer surface as an incrementally decreasing diameter from the first end toward the second end.

72. (Previously presented) The ear probe tip of claim 60, the first end having a surface, the surface being configured to engage a base portion of the probe.

IX. EVIDENCE APPENDIX

An evidence appendix is not applicable in this matter.

X. RELATED PROCEEDINGS APPENDIX

A related proceedings appendix is not applicable in this matter.

XI. CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that each of claims 60-72 is patentable over the prior art, and that all of the pending claims should be allowed.

Respectfully submitted,

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